## AMENDMENTS TO THE CLAIMS

**The following is a complete listing of the claims indicating the current status of each claim and including amendments currently entered as highlighted.**

1. (currently amended) A method for sterilizing at least one item in a chamber, comprising the steps of:

(a) disposing the at least one item in the chamber; and

(b) performing a plurality of cycles including:

(i) pumping the atmosphere from the chamber until the atmosphere of the chamber has a pressure of less than one torr;

(ii) generating electrical discharge in the chamber;

~~(c)~~(iii) adding water vapor and ozone to the chamber

~~; and~~

~~(d) generating electrical discharge in the chamber,~~ such that said electrical discharge produces OH radicals from said water vapor and said ozone so as to contribute to sterilization of at least part of the at least one item, said adding being performed so as to increase the pressure of the atmosphere within the chamber until the pressure reaches between 5 torr and 15 torr and said electrical discharge is broken.

2. (original) The method of claim 1, wherein said step of pumping is performed by pumping the atmosphere from the chamber until the atmosphere of the chamber has a pressure of less than half a torr.

3. (original) The method of claim 1, further comprising the step of producing said ozone from oxygen using an ozonizer.

4. (original) The method of claim 1, further comprising the step of producing said water vapor by passing at least part of said ozone over a reservoir of water.

5-8. (canceled)

9. (currently amended) The method of ~~claim 8,~~ claim 1, wherein said steps are repeated cyclically at least 20 times.

10. (currently amended) The method of claim 1, ~~claim 8,~~ wherein said steps are repeated cyclically at least 60 times.

11. (currently amended) The method of claim 1, ~~claim 8,~~ further comprising the step of allowing said OH radicals to diffuse in the chamber for a specified diffusion time prior to repeating said step of pumping.

12. (original) The method of claim 1, further comprising the step of recycling at least part of said ozone which was added to the chamber.

13. (original) The method of claim 1, further comprising the step of injecting radicals into the chamber.

14. (original) The method of claim 13, wherein said radicals include OH radicals.

15. (original) The method of claim 13, wherein:

(a) the at least one item has an internal volume; and

(b) said step of injecting is performed by injecting at least part of said radicals into said internal volume of the at least one item.

16-19. (canceled)

20. (currently amended) A system for sterilizing at least one item, comprising:

(a) a chamber having a first door, said first door being configured, such that the at least one item is entered into said chamber via said first door;

(b) a pumping system associated with said chamber, said pumping system being configured to pump the atmosphere from said chamber until the atmosphere of said chamber has a pressure of less than one a torr;

(c) an ozone and water vapor system associated with said chamber, said ozone and water vapor system being configured for adding ozone and water vapor to said chamber;

(d) an electrode arrangement disposed in said chamber; ~~and~~

(e) an electrical supply system electrically connected to said electrode arrangement, said electrical supply system and said electrode arrangement being configured for generating electrical discharge in said chamber~~, such that said electrical discharge produces OH radicals~~

~~from said water and said ozone so as to contribute to sterilization of at least part of the at least one item~~; and

(f) a control system configured for actuating said pumping system, said ozone and water vapor system and said electrical supply system, said control system being configured for performing a cycle including:

(i) actuating said pumping system to pump the atmosphere of said chamber until the atmosphere of said chamber has a pressure of less than half a torr;

(ii) actuating said electrical supply system to generate said electrical discharge in said chamber;

(iii) actuating said ozone and water vapor system to introduce said water and said ozone into said chamber such that said electrical discharge produces OH radicals from said water and said ozone so as to contribute to sterilization of at least part of the at least one item, said adding being performed so as to increase the pressure of the atmosphere within the chamber until the pressure reaches between 5 torr and 15 torr and said electrical discharge is broken.

21. (original) The system of claim 20, wherein said pumping system is configured to pump the atmosphere from said chamber until the atmosphere of said chamber has a pressure of less than half a torr.

22. (original) The system of claim 20, wherein said ozone and water vapor system includes an ozonizer configured to produce said ozone from oxygen.

23. (original) The system of claim 20 wherein said ozone and water vapor system includes a reservoir configured for storing water, said ozone and water vapor system being configured to produce said water vapor by passing at least part of said ozone over said water.

24-25. (canceled)

26. (currently amended) The system of claim 20, ~~claim 25,~~ wherein said control system is configured for performing said cycle at least 20 times.

27. (currently amended) The system of claim 20, ~~claim 25,~~ wherein said control system is configured for performing said cycle at least 60 times.

28. (original) The system of claim 20, further comprising a biological filter configured to filter air entering said chamber on completion of a sterilization process.

29. (original) The system of claim 20, further comprising a ozone destruction filter configured to substantially prevent a part of said ozone exiting to a surrounding atmosphere when said pumping system is actuated.

30. (original) The system of claim 20, wherein said electrode arrangement includes an electrode which is implemented as at least part of said first door.

31. (original) The system of claim 20, further comprising a second door configured, such that the at least one item is removed from said chamber via said second door on completion of a sterilization process.

32. (original) The system of claim 31, wherein said electrode arrangement includes a first electrode which is implemented as at least part of said second door.

33. (original) The system of claim 32, wherein said electrode arrangement includes a second electrode which is implemented as at least part of said first door.

34. (original) The system of claim 33, wherein:

(a) said electrode arrangement includes a third electrode and a fourth electrode; and

(b) said electrode arrangement and said electrical supply system are configured, such that when said electrical supply system is actuated there is at least one central region of zero field gradient within said chamber.

35. (original) The system of claim 20, further comprising a secondary pumping system associated with said chamber, said secondary pumping system being configured to recycle at least part of said ozone which was added to the chamber.

36. (original) The system of claim 20, further comprising a plasma gun configured for injecting radicals into said chamber.

37. (original) The system of claim 36, wherein said radicals include OH radicals.

38. (original) The system of claim 36, further comprising a connector arrangement configured, such that said plasma gun injects at least part of said radicals into an internal volume of the at least one item.

39-46. (canceled)